Electronic Commerce and Client/Server Computing

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EDI/Electronic Commerce Program

Main Message:

Electronic commerce and Client/server are perfectly suited for each other, complementary and mutually reinforcing

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Points Covered:

- Client/server applications in electronic commerce environments
- Impact of electronic commerce on client/server (and vice versa)
- Impact on user communities
- Today's electronic commerce vendors

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Definition:

Electronic Commerce is doing business electronically over digital networks. It is the networking of business applications and workflows to support trade among companies.

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Definition:

Client/server is the division and distribution of processing tasks over several processor units.

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A Company is Simultaneously

A client (to its suppliers) and a server (to its customers)

Its information systems for trade must reflect this

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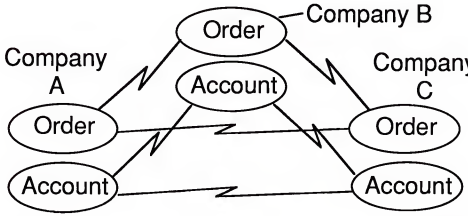
The Client/Server Relationship Among Companies



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Software: Fastest Growing EC Segment

Segment	'92-'93 Growth (Percent)	'92 Sales ($ Millions)
Software	28	280
Professional Services	25	40
Elect. Info. Services	16	700
Network App. Services	14	800
Total	17	1,820

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Electronic Commerce Software Segments

Segment	'92-'93 Growth (Percent)	'92 Sales ($ Millions)
E-mail	33	120
EDI	28	115
EFT	8	25
Other	25	20
Total	28	280

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As Proxy for Client/Server

UNIX

- Tremendous growth in EC applications
- Seventy percent growth in sales of UNIX-based EDI translation software (leading all other platforms)

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As Proxy for Client/Server

UNIX

- One-third of those using UNIX EDI s/w adopted UNIX specifically for EDI
- Second most frequent IT project is OS conversion (out of 1,600 users)
- One-third of all IT projects involves an EDI component (out of 1,600 users)

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Specific Intercompany Benefits of UNIX

- Time responsive to trading partner
- Internal-to-external IS integration
- Scalable for EDI expansion
- Communication features
- Equitable distribution of IS costs

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Core Electronic Commerce Client/Server Applications

- Billing
  - Intercompany (invoices)
  - IS chargeback
- Order Entry

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Electronic Commerce Client/Server Applications

Catalogs and Directories
(pre-transaction; buyer is user)

Segment	'92-'93 Growth (Percent)	'92 Sales ($ Millions)
Catalogs	37	130
Directories	42	12

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Electronic Commerce Client/Server Applications

Data Warehousing and Decision Support
(post-transaction; seller is user)

Segment	'92-'93 Growth (Percent)	'92 Sales ($ Millions)
Sales & Mktg. EIS	12	580

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Electronic Commerce Client/Server Applications

Facsimile Servers

Segment	'91-'94 Growth (Percent)	'94 Installs (Millions)
Standalone Fax	14	15
Fax Card	129	6
Total	26	21

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Electronic Commerce Client/Server Applications

- Electronic commerce workstations

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Impacts of Client/Server on Electronic Commerce

Technological:

- Falling price performance
- Mass market for EC
- EDI services built into NOS
- Business process is key

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Impacts of Client/Server on Electronic Commerce

- Decentralization of information systems/services

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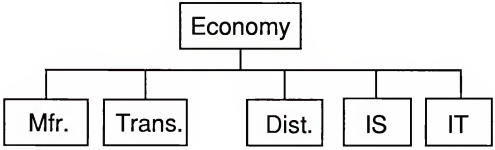
Decentralization of Information Systems/Services

Old Position of IS



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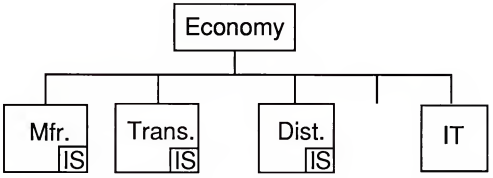
Decentralization of Information Systems/Services

New Position of IS



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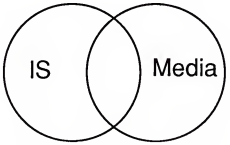
Impacts of Client/Server on Electronic Commerce

Merging of information services and media industries



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Impacts

- A new organization of the economy
  - "Macro" client/server environment
  - Virtual (network) marketplaces

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Impacts on User Communities

Wherever information is directly a competitive advantage, SHAKE OUT

- Distribution
- Information svcs.
- High tech
- Government
- Media
- Health care
- Utilities
- Transportation/logistics

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Impacts on User Communities

- Wherever material is key (manufacturing), greater outsourcing, specialization, and information intensification

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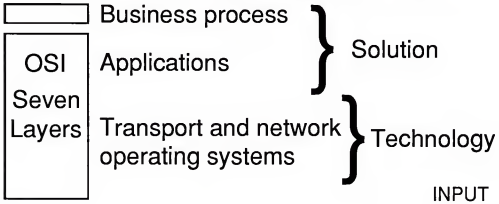
Vendor Impact

Two markets:

- Mass market (technology)
- Vertical or trading community (solution)



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Vendor Impact

Business Solution Vendors:

Examples:	GEIS, Sterling, EDS, TI, VARs,....
Market:	Trading communities
Revenue source:	Fees, equity

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Vendor Impact

Business Solution Vendors:

IT offering:	Business integration services; customer support
Assets:	People, intangibles
Competitive lever:	Customer satisfaction

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Vendor Impact

"Technology" Vendors:

Examples:	AT&T, Microsoft, Delrina, Intuit, D&B, Oracle....
Market:	Mass market
Revenue source:	Royalties, per seat fees

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Vendor Impact

"Technology" Vendors:

IT offering:	Utility, basic technology
Assets:	Intellectual property
Competitive lever	Negoitiative/market power

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Conclusions

- Get on the ubiquitous network
- Charge for customer support
- Obtain industry expertise
- Make alliance with large users
- Sell to communities; belong to communities; be instrumental in communities

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TORREY K. BYLES
SENIOR CONSULTANT

PROFILE

CAPABILITIES

- Ten years experience in the computer, electronics and information-systems industries.

BACKGROUND

- With INPUT, Mr. Byles provides analysis and consulting services on the market and technologies of Electronic Data Interchange and Electronic Commerce. He is responsible for INPUT's monthly EDI newsletter, researching and writing of market reports, consulting with clients and speaking on EDI topics.

- Previously, Mr. Byles wrote for trade magazines and newspapers in both staff and freelance capacities. Just prior to joining INPUT, he covered EDI for the *Journal of Commerce*, a Knight-Ridder business daily. In addition, he frequently contributed articles on EDI for *Computerworld*, *MIS Week*, and other computer and trade periodicals. Mr. Byles was a staff writer for the IEEE Computer Society, a professional organization and publisher of six computer journals. Byles has written for a variety of other magazines including *Electronic Business*, *Datamation*, *CD-ROM Librarian*, *Wilson Library Bulletin*, and *Asian Electronic News*.

- Mr. Byles has experience in marketing and promotional activities for technology, publishing and educational companies.

- Mr. Byles speaks Mandarin Chinese and was an interpreter for the 1984 Olympic Games in Los Angeles.

- Mr. Byles has lived abroad in Taiwan where he was an editor of an electronic trade magazine.

- Mr. Byles also has experience as a secondary school teacher.

EDUCATION

- B.A., Economics, University of California, San Diego.

- Graduate Program in Education, California State University, Los Angeles.